

Work Order ID 143817

Wednesday, March 23, 2016 9:44:19 AM

143817

Page 1

Item ID: D6101-005 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle Billet
Start Date: 3/28/2016 Start Qty: 40.00 ***40*** Cust Item ID:
Required Date: 4/8/2016 Req'd Qty: 40.00 ***40*** Customer:
Reference:

Approvals: Process Plan: MLJ Date: MAR 23 2016 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6101	Rev B								
100	PURCHASING	0.00							DAS 13 9-59
100						40	MAR 24 2016		
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>31815</u>								
	a) Description: Alluminum billet								
	b) 5.00" x 8.250" x 2.50" thick								
	c) Tolerance on all dimensions are +0.030"/-0.000"								
	d) Grain direction along 5.00" length								
	e) Material: 7075-T7351 (QQ-A-250/12)								
	f) Material certification required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.01							
Packaging	Ensure material certification is attached								

40x 88/6-04-11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 143817

Wednesday, March 23, 2016 9:44:19 AM

143817

Page 2

Item ID: D6101-005

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle Billet

Start Date: 3/28/2016 Start Qty: 40.00

40

Cust Item ID:

Required Date: 4/8/2016 Req'd Qty: 40.00

40

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							DAS 14 9-39
120						40	0		16/04/12
QC	Memo	0.00							
Quality Control	Ensure Material certification comply to Dwg D6101								
130	Identify as per dwg & Stock Location: <u>MAT040</u>	0.00							DAS 14 9-39
130						40	0		16/04/12
Packaging	Memo	0.01							
Packaging	LOCATION: MAT041								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.07							
Quality Control									

MCS

APR 12 2016

MCS

APR 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

Wednesday, March 23, 2016 9:44:21 AM

Page 1

Work Order ID: 143817

143817

Parent Item: D6101-005

D6101-005

Parent Item Name: Saddle Billet

Start Date: 3/28/2016

Required Date: 4/8/2016

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A: 01.05.04New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-005P		Purchased	No			110	Each	0.0000	1	40			
D6101-005P									**				
7075-T7351 8.25X5.0X2.5													

40X SP/6-04-11

DQA: _____ Date: _____



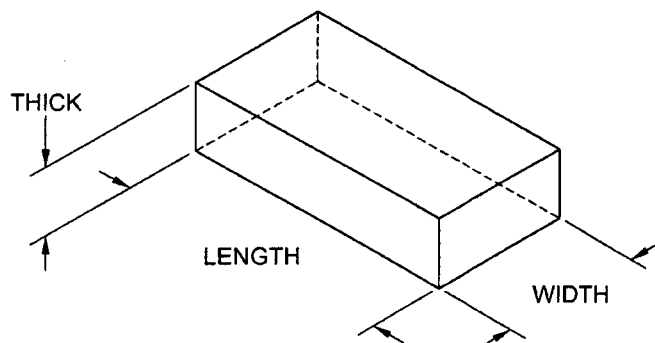
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 143817 ML5
 16-03-23

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO31815

Purchase Order Date 3/24/2016

PO Print Date 3/28/2016

Page Number 1 of 2

Order From :

VU-MET002

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

METAUX CASTLE
P.O. BOX 4090 STN A
TORONTO, ONTARIO M5W OE9
CANADA

REVISED

Contact Name

Vendor Phone

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D6101-005P	7075-T7351 8.25X5.0X2.5	4/11/2016 Yes 4/11/2016		40.00 Each	\$36.20	\$1,448.00
AS PER DWG D6101 REV.B B143817 SIZE: 5.00" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG 5.00" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"							
Line Total:							\$1,448.00
2	D6101-007P	7075-T7351 8.25X7.75X2.5	4/11/2016 Yes 4/11/2016		40.00 Each	\$56.00	\$2,240.00
AS PER DWG D6101 REV. B B143818 MATERIAL: 7075-T7351 (QQ-A-250/12) SIZE: 7.750" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 7.750" LENGTH TOLERANCE AS PER QUOTE +.030"/-.000"							

Note:

3/28/2016

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:2938466

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
08-APR-16	ORIGIN	Prepaid		MANITOULIN		2938466-2	

Shipment Details	Final Destination Branch - TOR
-------------------------	---------------------------------------

Order No	Line No	Item No	Description
4300206	1	752241MO	2.5000.PL.7075.T7351.AN ALUMINUM US1.48.5000.144.5000 CUT 2SIDED TO 8.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) X 5 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12

Purchase Order No	Part Number	Ordered Qty	Invoice Qty
31815	YOUR ITEM NUMBER: D6101-005	40.00 PCS	40.00 PCS

Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com SHIP TO CASTLE, TORONTO (MISSISSAUGA) CUSTOMS BROKER: GEORGE H. YOUNG END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS
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Delivery No. 120388060	Mill KAISER ALUMINUM	Heat Number 	Mech Id	PCS 40	Width (IN)	Length (IN)	Shipped Qty(LBS) 426.6242
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These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 08-APR-2016 05:39:32 PM



Castle Metals®

A. M. Castle & Co.

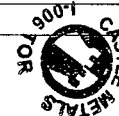
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.		
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.		
Reviewed by Authorized Castle Metals Representative:	Date:	Name:

Go

APR 08 2016



SP/6-04-11

STRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE RECEIVED, Subject to the classification and tariffs in effect on the date of issue of this Bill of Lading The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff this is a motor carrier shipment.		Shipper No.: 2931754-2 FROM AT: A. M. Castle & Co. 3050 S HYDRAULIC WICHITA KS 67216 USA	
		Ship Date: 01-APR-16	
		Payment Terms: Prepaid REMIT FREIGHT INVOICES TO: RayTrans Management, Inc. PO Box 1210 Washington PA 15301	
Consigned To: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA ON L5N 2K7 CAN	Delivery instructions: ALL LOADS MUST BE TARPED. DELIVER PACKING LIST AND TEST REPORTS OR CONSIGNEE WILL REFUSE.		
Carrier Name: OLD DOMINION	Additional Insurance Coverage: The agreed or declare value for the property is hereby specifically stated by the shipper to be not exceeding: _____ per _____		

Shipment Breakdown:

Quantity	Packaging	Class	Commodity
1	BOX	FAK_50	Metal Product
3	SKID	FAK_50	Metal Product

Shipment Weights:

Product	1499 LBS
Dunnage	48 LBS
Gross	1547 LBS

ORDER DETAIL:

Customer PO	Sales Order No.	Line No.	Castle Item No.	Quantity Shipped	Castle UOM
150512	4295410	1	4295410*1*1	10	PCS
149751	4298910	1	4298910*1*1	92	PCS
31815	4300206	1	4300206*1*1*321484457	40	PCS
31815	4300206	2	4300206*2*1*321484459	40	PCS

Subject to Section 7 of Conditions of applicable bill of Lading. If this shipment is to be delivered to the consignee without recourse to the consignor, the consignor shall sign the following statements.
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight." NOTE: Where the rate is dependent on value, the shippers are required to state specifically in writing the agreed or declared value of the property.

THIS SHIPMENT IS TO BE TENDER RECEIVED AND TO BE CARRIED SUBJECT TO ALL TERMS AND CONDITIONS OF THE STEAMSHIP COMPANIES CURRENT FORM BILL OF LADING

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

THIS IS TO CERTIFY THAT THE ABOVE NAMED ARTICLES ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

Customer is responsible for all shipping documents and compliance with United States and Canadian laws, including but not limited to U.S. and Canadian Export laws and regulations.

Shipper No.: 2931754-2

SHIPPER, PER:
Alison R. Patterson

insert creator's name

Per
Date
Driver's Signature
PROOF OF DELIVERY:

Signature / Date

Name

Please Print Name Here

All pages must be signed

Page 1 of 1

RECEIVED
 SUBJECT TO COUNT
 AND INSPECTION

APR 07 2016

A.M. CASTLE & CO.
 TORONTO



Castle Metals®

A.M. Castle & Co.

INTRA-COMPANY TRANSFER PROFORMA INVOICE

Vendor (Name and Address) A.M. Castle & Co. - WICHITA EAST - CASTLE METALS A. M. Castle & Co. 3050 S HYDRAULIC WICHITA, KS 67216		Date of Direct Shipment 01-APR-16	Place PRO Number Here
Tax Registration Number: 36-0879160		Other References (Include Bill of Lading No.) 2931754-2	
Consignee (Name and Address) A.M. Castle & Co. - TORONTO - CASTLE METALS A. M. Castle & Co. (Canada) Inc. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7		Purchaser (Name and Address) A.M. Castle & Co. - TORONTO - CASTLE METALS A. M. Castle & Co. (Canada) Inc. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7	
Tax Registration Number: 13835 3438 RC0001		Tax Registration Number: 13835 3438 RC0001	
Transportation OLD DOMINION		Conditions of Sale and Terms of Payment 45 NET	
INCO Term: DDP - MISSISSAUGA, ON, L5N 2K7, CAN		Currency of Settlement USD	

Item	Specs of Commodities				Tariff Code		Export License		ECCN	ITAR
	Order-Line-Ship	# Pkgs.	Weight	Heat	Country of Origin	Units	UOM		Price per Unit	Total Price
8622.MO	1.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000				7606123030		NLR		EAR99	N/A
	4295410-1-1	1	50.52 LBS	162757B9	US	10.00	PCS		\$1.8438	\$93.14
8622.MO	1.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000				7606123030		NLR		EAR99	N/A
	4298910-1-1	1	360.49 LBS	162757B9	US	92.00	PCS		\$1.8438	\$664.67
752241.MO	2.5000.PL.7075.T7351.ALUMINUM.48.5000.144.5000				7606123030		NLR		EAR99	N/A
	4300206-1-1	1	426.62 LBS	159113B0	US	40.00	PCS		\$2.7276	\$1,163.64
752241.MO	2.5000.PL.7075.T7351.ALUMINUM.48.5000.144.5000				7606123030		NLR		EAR99	N/A
	4300206-2-1	1	661.27 LBS	159113B0	US	39.92	PCS		\$2.7276	\$1,803.68

Invoice Package Total 4	Total Weights Net 1,498.90 Gross 1,546.90	Invoice Total \$3,725.13	Originator (Name and Address) A.M. Castle & Co. - Wichita East 3050 S HYDRAULIC 171730860 WICHITA, KS 67216 UNITED STATES
* Price per UOM and Total Price have been adjusted to include Processing and Handling Charges if applicable.			Signature: <i>William R. Patterson</i> 

THESE COMMODITIES, TECHNOLOGY, OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED

**Castle Metals®**

A.M. Castle & Co.

North American Free Trade Agreement - CERTIFICATE OF ORIGIN

Exporter Name A.M. Castle & Co. A. M. Castle & Co. 3050 S HYDRAULIC WICHITA, KS 67216 Tax Identification Number: 36-0879160	Reference Number 2931754-2
Producer Name Tax Identification Number: Available Upon Customs Request	Importer Name A.M. Castle & Co. A. M. Castle & Co. (Canada) Inc. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 Tax Identification Number: 13835 3438 RC0001

Description of Good(s)	Heat Number	HTC	Preference Criterion	Producer	Net Cost	Country of Origin
752241.MO 2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000	159113B0	760612	B	No2	No	US
752241.MO 2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000	159113B0	760612	B	No2	No	US
8622.MO 1.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000	162757B9	760612	B	No2	No	US
8622.MO 1.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000	162757B9	760612	B	No2	No	US

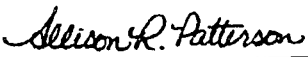
I certify that:

The information on this document is true and accurate and I assume responsibility for proving such presentations. I understand that I am liable for any false statements or material omissions made on or in connection with this document;

I agree to maintain and present upon request, documentation necessary to support this certificate, and to inform, in writing, all persons to whom the certificate was given of any changes that would affect the accuracy or validity of this certificate;

The goods originated in the territory of one or more of the parties, and comply with the origin requirements specified for those goods in the North American Free Trade Agreement, and unless specifically exempted in Article 411 or Annex 401, there has been no further production or any preparation outside the territories of the parties; and

This certificate consists of _____ pages, including all attachments.

Authorized Signature:  	Company: A. M. Castle & Co.	
Name (Print or Type): Allison R. Patterson	Title: Transportation Assistant	
Date: 4/1/14	Telephone: 316-522-5900	Fax:

SHIP TO:

A M CASTLE & CO
3050 SOUTH HYDRAULIC
WICHITA, KS 67216

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4400295

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CUSTOMER PO NUMBER: 344048		WORK PACKAGE: 752241	CUSTOMER PART NUMBER:		SHIP RUN/LOAD: 103411/11	GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1199093	LINE ITEM: 1	SHIP DATE: 9-DEC-2015	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: KaiserSelect Plate	
WEIGHT SHIPPED: 9038 LB	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2057453	GUAGE: 2.5000 IN (63.5000 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)	LENGTH: 144.500 IN (3670.3 MM)		

MHU 1951968: LOT 15911380: 2 pieces;
MHU 1951970: LOT 15911380: 1 pieces;
MHU 1951975: LOT 159081B9: 1 pieces;
MHU 1952073: LOT 15915180: 1 pieces;

DAS
14
9-09

Certified Specifications

AMS 4078/RevJ
ASTM B 209/Rev14
BSS 7055/RevB
DPS 4.713/RevAK
MMS 159/RevT

AMS-QQ-A-250/12/RevA
ASTM B 594/Rev13
CMMP 025/RevU
GAMPS 9101/RevB/AmdSCN1
PS 21211/RevM

AMS-STD-2154/RevA
BAC 5439/RevJ
CSTI 006/RevE
GSS16100/RevG/Amd1

Test Code: 4297

Test Results

Lot: 159081B9 Cast: 895 Drop: 48 Ingot: 1 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.1 : 70.4 (483 : 485)	58.9 : 59.8 (406 : 412)	11.8 : 12.4

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.4 Min	40.8 Max
(MS/M) :	23.4 Min	23.7 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.09	0.18	1.5	0.05	2.4	0.20	5.7	0.03	0.01	0.01	TOT 0.05



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4400295

Lot: 159113B0

Cast 895

Drop 51

Ingot 3

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:

Temper

T7351

Dir / # Tests

LT / 2 (Min:Max)

Ultimate KSI (MPA)

69.8 : 72.0

(481 : 496)

Yield KSI (MPA)

58.8 : 62.1

(405 : 428)

Elongation %

11.4 : 12.0

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :

40.1 Min

40.4 Max

(MS/M) :

23.3 Min

23.4 Max

(ASTM E1251)

Chemistry:

SI

FE

CU

MN

MG

CR

ZN

TI

V

ZR

OTHER

Actual(wt%)

0.09

0.19

1.4

0.05

2.4

0.19

5.7

0.03

0.01

0.01

TOT

0.05

Lot: 159151B0

Cast 895

Drop 54

Ingot 1

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:

Temper

T7351

Dir / # Tests

LT / 2 (Min:Max)

Ultimate KSI (MPA)

69.4 : 69.8

(479 : 481)

Yield KSI (MPA)

57.7 : 59.0

(398 : 407)

Elongation %

11.4 : 11.5

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :

40.4 Min

40.8 Max

(MS/M) :

23.4 Min

23.7 Max

(ASTM E1251)

Chemistry:

SI

FE

CU

MN

MG

CR

ZN

TI

V

ZR

OTHER

Actual(wt%)

0.09

0.19

1.5

0.04

2.5

0.20

5.7

0.03

0.01

0.01

TOT

0.05



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4400295

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC CA-15413B R 6
AMS 4078,AMS QQ-A-250/12,AMS STD-2154,A
STM B209,ASTM B594,BS
S 7055,CMMF 025,CSTI 006,DPS 4.713,GAMP
S 9101,MMS 159,PS 212

11

TEST NOTES

Metal represented by this test report was 100% immersion
ultrasonically tested from one side with 3mm dead zones top
and bottom and meets the Class A and Class B requirements of
all specifications referenced on this test report. No
surface marking of sonic indications is performed.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC (Kaiser), is ISO 9001:2008/AS9100C certified and hereby certifies that all material shipped under this order:
* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements.
* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
* has been thermally processed in compliance with AMS 2772, where applicable.
* is mercury free, within the limits of detection of ASTM E1251 (< = 1 ppm).
* is in compliance with RoHS 2, European Union Directive 2011/65/EU.
* is in compliance with and regularly monitors any updates to the European Chemical Agency, ECHA, REACH regulations, (EC) n°1907/2006.
* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, LABORATORIES SUPERVISOR



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: N6101-005
DATE: 11/04/12

PO / BATCH NO: 31815/143817

MATERIAL CERT REC'D: yes
QUANTITY RECEIVED: 40
QUANTITY INSPECTED: 40
QUANTITY REJECTED: _____

THICKNESS ORDERED: 5.00X8.25X2.50
THICKNESS RECEIVED: 5.00X8.25X2.50
SHEET SIZE ORDERED: _____
SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N ☒	
CORRECT FINISH	☒ Y ☒ N ☒	
CORROSION	Y ☒ N ☒	
CORRECT GRAIN DIRECTION	☒ Y ☒ N ☒	
CORRECT MATERIAL	☒ Y ☒ N ☒	
CORRECT THICKNESS	☒ Y ☒ N ☒	
PHOTO REQUIRED	Y ☒ N ☒	
CORRECT MATERIAL	☒ Y ☒ N ☒	
CORRECT REF # TO LINK CERT	☒ Y ☒ N ☒	
CORRECT MATERIAL IDENTIFICATION	☒ Y ☒ N ☒	
CORRECT M# ON THE MATERIAL	☒ Y ☒ N ☒	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N ☒	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N ☒	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR D
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>14</u>	SIGNED OFF BY: _____		
DATE: <u>11/04/12</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

INSTRUCTIONS FOR INSPECTING BAR, TUBING, ROUND, & SHEET STOCK

- 1- VERIFY STOCK TO DART PURCHASE ORDER
- 2- MEASURE ALL DIMENSIONS FOR EACH PURCHASED STOCK
 - a WIDTH, THICKNESS, DIAMETER, WALL THICKNESS & LENGTH
- 3- VERIFY CONDITION OF MATERIAL i.e. DAMAGED, CORRODED, etc.
- 4- VERIFY THAT SUPPLIER HAS A NUMBER (HEAT #) ON ITS RECEIVING REPORT TO LINK TO MATERIAL CERTS
- 5- VERIFY MATERIAL CERTS ARE CORRECT TO THE DART PO INSTRUCTIONS
- 6- REMOVE / CUT A PIECE OF MATERIAL FOR SAMPLE HARDNESS TESTING

INSTRUCTIONS FOR INSPECTING SKIDTUBE & STEP EXTRUSION

- 1- VERIFY TO DART SUPPLIED DRAWING
- 2- SAMPLE INSPECT MATERIAL IN BUNDLE TO ENSURE MATERIAL CAN BE RECEIVED INTO DART
- 3- USING PORTABLE HARDNESS TESTER VERIFY HARDNESS OF THE MATERIAL TO THE DRAWING
- 4- VERIFY THAT MATERIAL CERTS MATCH TO WHATS CALLED UP ON THE DART DRAWING

AFTER MATERIAL PASSES INSPECTION

- 5- HAVE DART EMPLOYEES START STOCKING MATERIAL, BUT REQUEST MIN 20pcs FOR FULL INSPECTION
- 6- INSPECT ALL DIMS AS PER DRAWING REQUIREMENTS

INSTRUCTIONS FOR INSPECTING CROSS TUBE MATERIAL

- 1- VERIFY MATERIAL CERTS MATCH THE REQUIREMENTS ON THE DART DRAWINGS
- 2- INSPECT MIN HALF THE BATCH OF EXTRUSION RECEIVED INTO DART
- 3- INSPECT MATERIAL AS PER THE EXTRUSION REPORT
 - a WALL THICKNESS USING ULTRA-SONIC IN 4 LOCATIONS
 - b OUTSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - c INSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - d STRAIGHTNESS @ CENTER OVER 12" SPAN
 - e WALL THICKNESS USING TUBE MICROMETER HIGHEST/LOWEST BOTH ENDS
- 4- IDENTIFY EACH TUBE IN SEQUENCE OF INSPECTING (TUBE 1, TUBE 2) AND W/O# AND PO#
- 5- RECORD ALL FINDINGS ON EXTRUSION REPORT

IF ANY QUESTIONS PLEASE SEE QC COORDINATOR BEFORE GOING FURTHER